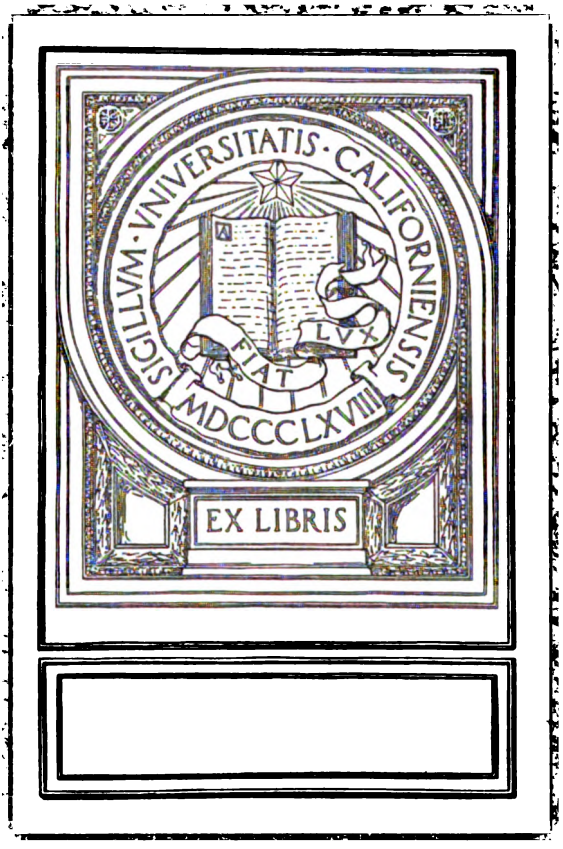

The Solvency of the Allies

Great Britain — France
Belgium — Italy

Guaranty Trust Company
of New York

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Great Britain – France
Belgium – Italy

Guaranty Trust Company of New York

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Foreword

WHEN the Armistice brought to an end a period of unequalled destruction of lives and property and nations confronted the tasks of readjusting industry and trade to a peace basis, almost everywhere there was manifest — and quite naturally — a disposition to magnify the losses which had been sustained. Admittedly, many of the losses are irreparable; but the time has come to take account of what remains and of what the future promises.

A survey of the present resources and producing power of the principal European Allies cannot fail to impress one with their ability to reëstablish their economic life. Already, in fact, there is ample evidence of gratifying progress in the work of rehabilitation. Yet it is imperative for all of us, especially our leaders in finance and industry, to gauge the present situation and its probable consequences as accurately as possible.

We have, in a large sense, the welfare of the whole world in our keeping today, and upon the wisdom and farsightedness which we show now in discharging this obligation will depend, in considerable measure, not only the progress of other nations but our own future as well. I believe absolutely that if the established countries of Europe are given the coöperation which we are capable of extending at this time, there will be no question that they will be able to revive their industries and normal trade conditions, which should provide a stable basis for credit.

The needs of European countries are for food, raw materials, coal, and machinery, which can be supplied to them in adequate quantities only through extension of credit on our part, as they have neither the gold nor sufficient goods with which to make immediate payment. Food for the hungry and work for the idle must be provided if the peoples of Europe are to maintain stable political conditions and resume peace-time production.

It is certain that American banking institutions cannot handle the credit demands presented without coöperation. Such coöperation must be accorded by our Government, our manufacturers, and producers. By team-play between these important factors in the situation, Europe can be put on its feet financially and industrially, and this country can be placed in a position of unchallenged leadership in the business affairs of the world.

This is a time when all thought of profits should be forgotten, and the simple necessities of the situation faced. Our first and single duty now is to help restore the world to normal conditions. If we do our part in bringing that about, the question of profits will be cared for in the future.

This country is facing its greatest opportunity and its greatest obligation, and if the sacrifices which have been made in the war are not to be in vain, we must rise to meet that opportunity and that obligation fully.

CHARLES H. SABIN.

Introduction

NOTHING is gained either by magnifying the losses or by minimizing the difficulties and problems that must be faced as a result of the World War. Accordingly, it is the purpose of this book to make a brief, impartial survey and analysis, from the information available, of the essential facts upon which judgment may be based as to the ability of the principal European Allies to meet their obligations and at the same time regain a normal place in the work of the world.

In considering the ability of the Allies to reëstablish their industrial life, an absolutely essential prerequisite of solvency, it is well to keep in mind certain fundamentals of war finance which will enable one to understand more fully the ability of these Nations to make the necessary readjustments.

Wars are fought with present goods, and their utilization for war purposes does not necessarily impair the producing power of belligerents, because the basic factors in the production of consumable goods—natural resources, tools, machinery, labor—remain when hostilities cease, and in many instances there is a material increase in manufacturing capacity. The development of new and improved methods of production and the substitution of automatic machinery for skilled labor, have unquestionably increased the producing power of the Allies during the war.

Coincident with war financing there has been an increase of prices, due to scarcity of materials, interruption in distributing processes, and, in part, to monetary inflation. But, in considering the problems created by the debt of any belligerent country, it must be recognized that high prices and inflation increase the monetary value of the wealth of that country and the monetary value of its national income, which, relatively, reduces the burden of the debt.

The larger portion of the war debt of the Allies is internal. The ability to meet an internal debt is purely a fiscal problem, because there are no additions or subtractions to the national wealth and the payment of interest on the debt implies the taxation of the people as a whole, interest being paid to present holders of the bonds, which effects only a partial redistribution of the national wealth.

The problem of meeting external debts is of vital significance to the national wealth of the country. It means the actual shipping out of products, and does not add to the wealth of the country. However, during the period of war finance, the creation of an external debt is of material benefit, because it increases the power of a warring nation to obtain supplies of materials produced by other peoples, thereby adding to its war-making power. This is a burden rightly to be borne by future generations.

One of the interesting points in regard to the external debt of the Allies is that our own Government is their largest creditor. Making these advances was a part of our war policy, and there is no immediate pressure upon the finances of the respective debtor countries to meet the payments on them. If necessary, the debtors can fund the interest on these obligations until they have reëstablished their industrial life and trade activities. This leaves these countries in a favorable condition to meet the limited amount of

external obligations that have been floated through private channels, and which will have to be paid in the immediate future.

In considering the situation which confronts Europe now, it is necessary to take account of the specific conditions of particular nations, of their past experience, their natural resources, and their economic possibilities. These conditions in each case must be studied, of course, in their relation to conditions outside the particular nation. There is a wide range to the community of interests among all the nations. And one of the tasks in peace will be to secure a wider appreciation of these common interests of mankind.

With the hope that in some degree our interpretation of the outlook in Europe today may help to define America's obligations and opportunities in the period of reconstruction, we turn to a consideration of four of the Allied nations.

CONTENTS

Great Britain

AS one of the principal belligerents, engaged in the war from the beginning of hostilities, Great Britain has made expenditures growing directly and indirectly out of the war which are far greater than those of any other Allied nation.

For convenience, in considering the financial status of Great Britain, monetary values will be rendered in American dollars at the par of exchange, $4.866 to the pound sterling.

Briefly stated, the major facts respecting the finances of the United Kingdom as of March 31, 1919, the end of the last fiscal year, are as follows:

The gross debt was $36,746,650,056, of which sum only $6,569,100,000 represented external obligations, repayable in foreign currency, while advances to Allies and Dominions amounted to $8,580,000,000.

The estimated debt service of the United Kingdom for the fiscal year 1919-1920, as presented in the Chancellor of the Exchequer's budget proposals, will be $1,751,760,000, or 30 per cent. of revenue receipts. And the normal peace budget of the British Government, as estimated by the Chancellor, will be $3,727,356,000, of which the debt service, including amortizations of one-half per cent., will constitute about 52 per cent. The post-war budget, as foreseen by the Chancellor, will be approximately four times that of the fiscal year 1913–1914.

Paying the Bill

The war, through increase of debt, pensions and relief payments, and increase of normal civil expenditures, has placed a very large tax burden upon the British people. It appears that in a normal post-war year their taxes will have to yield about $3,400,000,000, or 19.4 per cent. of their national annual income, which is conservatively estimated to be $17,517,600,000.

But already the policy of the Government in the administration of war finances has quite properly included heavy taxation. Of the total money raised for the Government's own expenses during the last five years, 36 per cent. was supplied by means other than loans. And the fact that the taxing machinery has been organized for raising such enormous sums will be very advantageous in planning the after-war administration of Government finances.

Ultimate Offsets to Debt

Furthermore, it will be noted, no allowance has been made here for the indemnities which eventually will be collected from the Central Powers nor for the debts owed to the British Government by the Dominions and the Allies. While they should be considered as ultimate offsets to the British debt, in what degree receipts from these sources may be available in the near future is a matter of speculation. Eventually, however, they will reduce the burdens of English taxpayers, so that the ratio between taxation and income will gradually be reduced.

As regards the internal debt, which is 82 per cent. of the total, there is involved no transfer of wealth to other countries. The payment of interest and principal, it is true, involves a transfer of wealth from taxpayer to debt holder which may seriously burden the individual taxpayer. How well such a load may be adjusted to the ability to bear it will depend upon the equitableness of the taxing system. And certainly there can be few holders of Government bonds who will not be called upon to pay in some part, at least, the taxes which they will in turn receive as interest or principal of the obligations.

The interest and amortization of the other 18 per cent. of the debt, which is owed abroad, will amount to approximately $360,000,000. As an offset, the interest due Great Britain on advances made to Allies and Dominions amounts approximately to 1.3 times the total interest on the external debt. Payments, in the main, will have to be made in the form of commodities or services, which, in international trade accounts, contribute to the credit or export side of the ledger. To what extent England's export trade will be stimulated by this situation is problematic. For many years the United Kingdom has imported more goods than it has exported, but this so-called unfavorable balance of trade has been offset by international payments which do not enter into the reports of foreign trade.

Foreign Investments

Chief among these counter-balancing items in the case of Britain have been the returns from investments abroad and the receipts of British owned ocean-carriers.

It is estimated that British foreign investments before the war amounted to $19,464,000,000, and that they now approximate $14,500,000,000. Broadly speaking, then, the returns from foreign investments that may be relied upon in balancing the international account have been reduced by about one-fourth during the war. Nevertheless, the remaining foreign investments exceed the external debt by about $8,000,000,000, and the yield from these investments at normal rates would not only pay the interest on that debt but also leave a large margin to England's credit.

Productive Capacity

Nevertheless, the prosperity of the nation will be measured largely by its ability to produce marketable commodities for sale abroad.

The experience of Great Britain in the war is a most illuminating example of the way in which war induces a rapid expansion of the capacity to produce consumable goods. Edgar Crammond estimates that the nation's power of production has been increased by about 50 per cent. since 1914.

Great Britain's industrial position has rested heretofore upon the ability to gather in raw materials from abroad and resell them as manufactures. In 1913, 69.5 per cent. of the merchandise exports were classed as manufactures, while of the imports only 25.2 per cent. were so classed. The expanded physical equipment has enhanced the nation's power to serve as a world's workshop.

Labor Force

The number of men killed and those who died of disease in the armed forces of the United Kingdom during the war was approximately 900,000. The population numbered 45,516,259 in 1911. The increase in subsequent years, estimated on a basis of the excess of births over deaths in the civilian population, added 2,057,121. Deducting 900,000 from the total thus obtained leaves an estimated population at the end of 1918 of 46,673,380.

But even if the population is larger than at the beginning of the war, it does not necessarily follow that the actual productive labor force has been augmented. There has been a substitution of hitherto unemployed women, for men withdrawn from civilian tasks, however, and it is reasonable to expect that such substitution will be operative in some measure in the future.

Industrial Organization

The manifold improvements in England's industrial organization during the war have constituted the most durable offset to the loss of man-power.

It is estimated that, whereas in 1872 Great Britain produced 57 per cent. of the total food consumed in the country,

The Royal Exchange, in the heart of London, with the Bank of England on the left.

in 1913 only 42 per cent. was of domestic production. During the war agricultural production was greatly increased, some 4,000,000 acres being added to the area under cultivation, and this will make the country less dependent upon foreign sources of food supplies than before the war.

Standardization

It was in manufactures that the most significant increases in output were effected. How this expansion was accomplished is explained in part by Professor A. W. Kirkaldy as follows: "At Lord Kitchener's instance, the whole world was searched for the best machinery; new factories were built, old factories were stripped and re-equipped; and the new machinery was automatic, semi-automatic, fool-proof, such as unskilled workers could very quickly be taught to handle..... We had scrapped all our old-fashioned ideas, our old machines that could do very beautiful work with a skilled man behind, and we replaced them with fool-proof tools, whose steel brain did the work, with an unskilled worker to pull the lever."

Other Industrial Gains

In other respects the gains to the industrial organization of the country have been important. Workers have been taught as never before to work with gauge and micrometer. The resulting gains in accuracy of workmanship will be lasting.

Again, manufacturers have learned much about the advantages of standardization of processes and operations in their plants. This was brought about in part by the Government in its efforts to bring to the maximum the output of all the plants working for the Government. Under Governmental guidance there was a pooling of experience that has been of great educational value to those directing the production of goods.

There has been a tendency toward combination in industry, for export trade and for production. A notable example is the recent dyestuffs combination. Employers, too, have learned to work together more readily than hitherto. Coöperation in unusual degree for a common cause of such magnitude as winning the war is bound to have its lasting effects.

Preparation of Banks

One evidence of the foresight of financial leaders in England is found in the amalgamations of large commercial banks which have brought together huge aggregations of banking resources.

Whereas in 1902 there were 115 banks in the United Kingdom publishing accounts, and in 1914, 70, in 1918 amalgamations had reduced the number to 57, with assets of approximately $12,700,000,000, or an average of about $223,000,000 per bank. No such concentration of banking resources has been effected in the United States. Here, in June, 1918, the State, private, and national banking institutions numbered 28,880, with aggregate resources of $40,726,400,000, or an average per bank of $1,410,000.

The recent amalgamation movement owes its chief impetus to the contemplated after-war demands that increased business would make upon the banks. With the principal banking resources already combined into larger units, English bankers are better prepared than ever to assist in the development of English industry and commerce.

The war occasioned a large increase in paper money, chiefly through currency notes issued directly by the British Government. On July 29, 1914, the Bank of England had issued $267,000,000 of notes secured by a gold reserve of 69 per cent. This had increased by June 18, 1919, to $505,000,000, with an 84 per cent gold reserve. On June 18, 1919, the amount of currency notes in circulation totalled $1,677,000,000, with a gold reserve of 8.5 per cent. These were emergency notes, and the whole amount was, therefore, a net addition to the paper circulation.

The national wealth, valued at $82,500,000,000 in 1914, is now estimated by Crammond at $116,000,000,000, representing a war-time increase of 39 per cent.

After the Napoleonic Wars

England's recovery and industrial expansion following the Napoleonic Wars furnish an object lesson that may well be recalled in connection with the present situation. It is very difficult, of course, to institute a comparison between conditions obtaining a century ago and those of today. The applications of steam and electricity in industry, and other transformations and developments in the equipment for supplying goods and services make ours an industrial age markedly different from that of 1815. Nevertheless, without pressing the analogy unduly, it is possible to find interesting and suggestive similarities between conditions and problems in Great Britain in the two periods.

England took part in a series of wars that continued, with brief interruptions, from 1793 to 1815. The population of Great Britain in 1816 was about 20,000,000. The wealth of the United Kingdom at that time was not more than $12,500,000,000, and the national income was not more than $1,500,000,000. Nevertheless, the country had incurred an aggregate debt of $4,475,000,000, the annual interest charge on which was $165,000,000. Thus, approximately 11 per cent. of the national income was paid in support of the debt. At the same time, the total annual expenditure of the Government was more than 25 per cent. of the national income.

It is interesting to note that the estimate of the ratio between debt service and national income for the present after-war period is almost identical with that just cited. The ratio between the total expenditures in the coming budget and the national income is 21 per cent., or somewhat less than the estimated ratio in 1816.

Moreover, heavy taxation during the Napoleonic Wars had borne much the greater part of the British Government expenditures. Taxes yielded $9,732,000,000 and loans $2,189,700,000.

In spite of the heavy expenditures, the wealth of Great Britain increased year by year during the wars. The steam engine was brought into general use, and spinning mills in the cotton and woolen trades underwent great development. The output of coal and iron rose rapidly. Both internal and foreign trade multiplied. Exports, which in 1811 were valued at $155,712,000, were valued at $248,166,000 in 1815.

During the Napoleonic wars there had been issued a great volume of paper currency, and prices rose to great heights. After 1797, when the Bank of England suspended cash payments, the country's circulating media consisted entirely of paper money.

Shortly after the signing of the peace treaty there was a great slump in prices, and the years 1816 and 1817 were marked by a considerable business depression. Poor crops in England contributed much to this result, and another cause seems to have been a misjudgment of the after-war Continental demand for English manufactures, and a consequent speculation in commodities at prices which proved disastrous to English traders. Whether the Continent's inability to offer goods in exchange outweighed the influence of English tariff restrictions aimed at the Continent, it is impossible to say. In either event the result was the same. The Continent had need of English goods but was not prepared under the handicaps existing to pay for them.

But in 1818, despite the temporary setback, British industry and commerce made noticeable gains. By 1820 a period of rapid industrial growth had begun. What had seemed an unbearable burden of debt in 1815 was borne with comparative ease.

The Outlook

All in all, the outlook for industrial progress in England is favorable. The manufacturing capacity of the country has been greatly increased during the war. Even more notable have been the improvements in port and warehouse facilities. Ships are being turned out rapidly, and the British merchant marine still exceeds in tonnage that of any other nation. A system of preferences which unites the various parts of the Empire commercially more closely than ever before will give the vast colonial resources a new significance for the development of British industry and trade. The position of London as a world financial center, still is an exceptionally important asset for the period of rehabilitation.

The recent removal of restrictions on the exportation of capital for investment will naturally result in an expansion of the export trade and a stimulation of domestic production.

Much depends upon the spirit and temper of a people. Their record of achievements in industry and finance has amply demonstrated the capacity of the English for doing big things in a big way, and for meeting emergencies with the requisite energy and ability.

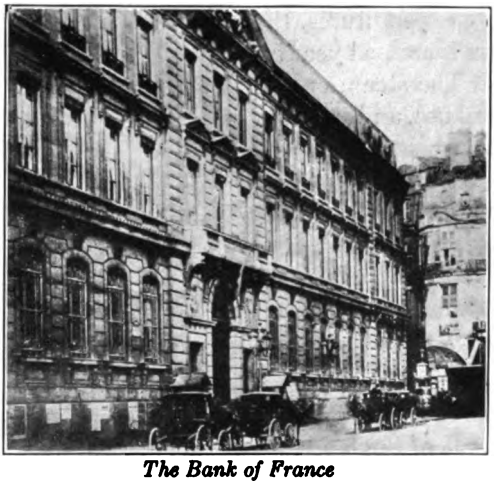
In view of the advantages accruing from a century of progress in the realms of industry and finance, it may be expected that Great Britain will again recover from the effects of war no less quickly than it did a century ago.

France

THE surprising military achievements of France in the World War attested not only the fortitude and morale of a great people, but the strength and adaptability of the country's industrial and financial organization before the war. Because of the sacrifices in men and wealth which France made in support of the common cause of the Allies, all the world is interested in the reconstruction and readjustment of French industry and finance.

Area, Population and Debt

In area, continental France is more than four times as large as New York State. The population in 1911 was 39,601,509. But in thinking of France as an economic unit its vast colonial empire must be included. In addition, France now regains the lost provinces of Alsace-Lorraine, with an area of 5,605 square miles and a population numbering 1,874,000 in 1910.



The Bank of France

The war losses of France in killed are estimated at approximately 1,385,000 men. In the 77 uninvaded departments there was, from 1914 to 1918 inclusive, a loss in population of about 1,070,000, calculated on the basis of reported births and deaths.

The national wealth of France before the war was estimated at $67,000,000,000. But in computing the value of national wealth at present the changed level of prices should be taken into account, and inasmuch as prices rose from July, 1914, to March, 1919, approximately 289 per cent., it may be assumed that a revaluation of France's national wealth in terms of money values today would give a figure well beyond $100,000,000,000.

The total debt of France on July 31, 1914, was 34,186,147,969 francs, or, at par of exchange, $6,593,278,296. The debt in March, 1919, was approximately $34,908,000,000. Some $1,388,600,000, however, had been advanced to the Allies. Taking no account of other offsets, the net debt, computed by deducting from the gross total the advances to Allies, amounts to approximately 173,000,000,000 francs, or $33,389,000,000.

The paper money in circulation, notes of the Bank of France, on June 5, 1919, amounted to $6,628,905,000, backed by a gold reserve equalling 14.7 per cent. of the face value of the notes. On July 30, 1914, the note circulation was $1,290,000,000, and the gold reserve was 61.9 per cent.

Of the total debt, about $5,785,000,000 is external. As offsets to the external debt, there are French investments abroad estimated at $8,100,000,000.

Ability to Carry the Debt

As estimated by Ribot, the peace budget of France will require approximately 16,000,000,000 or 17,000,000,000 francs, which is three times the budget of 1914. The service of the debt, which he estimates will be 200,000,000,000 francs in 1920, is placed at 10,000,000,000 francs.

In view of the foreign investments and the expected payments of indemnities by Germany, it appears that no great difficulty will be experienced by France in caring for the external obligations after the resumption of normal peace activities.

The internal debt is so large that only by means of heavy taxation can the necessary revenues for its service be obtained. In view of the sudden invasion and the overrunning of a large portion of French territory, it was deemed expedient to rely during the war mainly upon borrowing. Until the taxing machinery can be reorganized, it is probable that considerable further borrowing on the part of France will be necessary. Ultimately, taxation sufficient to meet the expenses will have to be levied. The exceedingly wide distribution of the holdings of the Government debt by the French people should facilitate the raising of sufficient revenue from taxation.

The key to the solution of the fiscal problems confronting the French Government is industrial. It is important, therefore, to note the degree of preparation already made for the present industrial tasks and the development and utilization of latent resources.

Reconstruction During the War

The really wonderful efficiency of the French nation as a fighting organization was in itself a guarantee that the national equipment for production was highly developed. Nor was this magnificent equipment for the production of the materials required in war used up in a single supreme effort. France was not exhausted at the close of the war, as was abundantly shown by its power of offense to the very end. It was not necessary to adopt, and France did not adopt, the slogan "business as usual" in order to preserve intact the capacity for peace-time production. Efficiency in a long war necessarily requires a high degree of provision for industrial production in peace.

This scene affords an idea of how transportation facilities were ruined in the sections of France occupied by the enemy

Before the war this factory at St. Quentin, France, was known as "the factory of a thousand trades." It is now in ruins and its machinery is fit only for the junk pile

The Departments of Nord and Pas de Calais, which were overrun in the early weeks of the war, were among the most highly-developed industrial sections of France. The districts occupied by the enemy represented more than 50 per cent. of the nation's coal production, 80 per cent. of the total iron ore production, 66 per cent. of the steel output, and 68 per cent. of the pig iron output. The textile, beet sugar, and other important industries also suffered greatly.

However, production was not paralyzed. So resolutely was the provision of food undertaken that by the spring of 1916 the agricultural situation was almost as satisfactory as it had been two years before. It is significant that between June, 1915, and June, 1917, the number of cattle in France increased appreciably.

Industrial Expansion

In various lines of industry there was expansion of the capital equipment as the war progressed. New plants were constructed and old ones were enlarged. In addition to the construction by the French, many new works and improvements were made by the British and the Americans, chiefly transport facilities.

The rapidity with which the French put new plants into operation is indicated by the results of an investigation made by the Department of Labor in July, 1917. Mines, quarries, railways, tramways and establishments which were under the supervision of the Ministries of War and Marine were not included in the investigation. In the 52,278 plants investigated, which were engaged in what may be called civilian production, it was found that the number of employes at work in July, 1917, was larger than before the war; the figures being respectively 1,559,393 and 1,524,959.

The construction of new plants and enlargement of old ones was widely distri-

buted among the several branches of industry. The chemical industries necessarily were greatly stimulated. Before the signing of the Armistice the production of sulphuric acid had almost doubled the pre-war volume, and the output of nitric acid had been increased to 30 or 40 times the former production.

In the field of mechanical construction the war occasioned the renewal in large part of the tool equipment of the French factories. Much of this equipment was obsolete, and its replacement with more modern machine tools marked a permanent gain. The scarcity of workers in many cases was largely offset by the introduction of labor-saving machines. In fact, the utilization of machinery did not merely replace former workers, it carried production to levels never before attained.

Coal and Water Power

New coal fields helped to replace the output of the mines that had been seized. The iron deposits of Normandy gave rise to an important smelting industry in that region.

One of the most significant of all the industrial developments during the war was the expansion of hydro-electric installations. Of the estimated 6,000,000 horse-power available in the country, only about 650,000 horse-power had been brought into use in 1913. At the end of 1917 there had been added some 374,000 horse-power, or more than half as much as all the developed waterpower in 1913. These new power installations have profoundly influenced the metallurgical industries. Before the Armistice about fifty electric furnaces were producing steel, with an estimated capacity of 800,000 tons annually. A beginning has been made in the electrification of railways, and it is expected that the work of further electrification will be pushed vigorously. A full utilization of waterpower resources would result in a saving of approximately 30,000,000 tons of coal annually.

The principal sources of hydro-electric energy are in the sections of France least exposed to invasion. This fact and the development of transportation in central, southern, and western France during the war, including an enormous expansion of port and terminal works, combine to make relatively permanent the new center of French industry. And this means that in many cases the destroyed factories in northeastern France will not be rebuilt on the old sites.

Recovery of Alsace-Lorraine

In addition to this reconstruction behind the lines in France, the productive equipment of the country has been greatly

Once a powerhouse in France

A potash mine in Alsace

enlarged as a result of the restoration of Alsace-Lorraine and the control of the coal mines in the Saar Basin.

Throughout the period of German control, agriculture and manufacturing in Alsace-Lorraine, already important, continued to develop.

The recovery of the provinces is especially important for France, however, because of their mineral resources. The iron deposits in Lorraine, it is estimated, amount to 1,800,000,000 tons. They occupy an area of approximately 1,660 square miles. The output in 1913 was 21,000,000 tons. While the coal resources of Alsace Lorraine do not correspond in volume to the iron, the control of the Saar Valley mines will offset the relative shortage of coal in the recovered provinces.

Coal Resources

The coal production in the Saar Basin before the war amounted to about 16,500,000 tons annually. According to the terms of the Treaty of Peace, Germany undertakes to deliver to France 7,000,000 tons of coal a year for ten years, and, in addition, an amount of coal equal to the difference between the annual production before the war of the mines of the Nord and Pas de Calais, which were destroyed as a result of the war, and the production of the mines of the same area for a period not exceeding ten years. Apparently, then, the coal resources at the disposal of France in the reconstruction period are to be in excess of the coal produced before the war and the iron resources will be greatly superior to those of the pre-war period.

Potash Deposits

The potash deposits of Alsace also are important. The output in 1913 was 350,000 tons, although the Germans had never found it necessary to work these deposits intensively under a policy of artificially restricted production. In the coming years unusual emphasis will be placed upon the enlargement of agricultural production in France. And every domestic source of fertilizer will facilitate the expansion of agriculture.

Alsace-Lorraine was the chief seat of

the German cotton manufacturing industry and was also an important center of the woolen industry. The number of cotton spindles in the returned provinces before the war was one-fourth the number in France. Other important manufacturing industries in Alsace-Lorraine include glass, chemicals, and paper.

Will Develop Manufactures

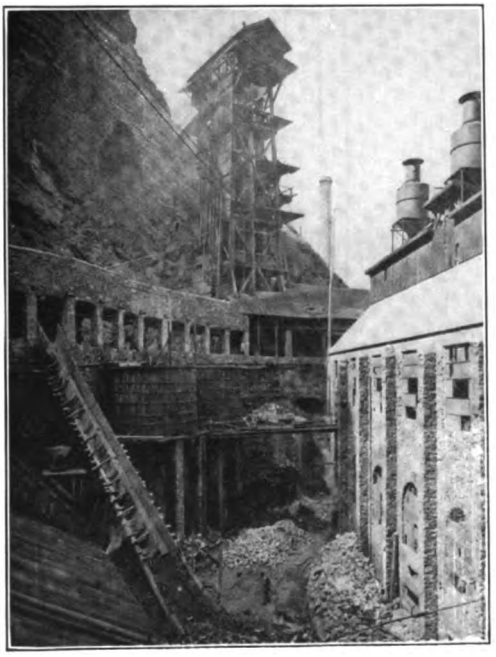
The indications are that France will not revert to the pre-war industrial position, characterized so largely by small scale production of fine quality manufactures. Doubtless there will be sufficient hand production and concentration upon luxury articles, but the main development promises to be the building up of a great manufacturing center in line with pre-war developments in England and Germany. Fundamental bases for such a development are found in the coal and iron which will be available in the reconstruction period, the large resources in waterpower and the improved port facilities. With a vast colonial empire supplying raw materials and absorbing manufactures and, with other markets open to French trade throughout the world, it is reasonable to expect that France will eventually become a much more powerful manufacturing nation than it was before the war.

French Colonies

The importance of the French colonial possessions for the future of French industry should not be overlooked.

The total area of the French colonial possessions is more than twenty-two times that of continental France. The population of these colonies is greater by 18 per cent. than the population of continental France. The extent of the industrial development of these outlying regions is best reflected in the statistics of trade. In 1913 the total foreign trade of the colonies was valued at $608,800,000. The trade, therefore, was approximately one-fourth that of France proper. It is important to note that France supplied 55 per cent. of the imports of the colonies and of the exports from the colonies 48 per cent. was sent to France.

This vast colonial empire of France contains valuable resources—agricultural, forest, and mineral. Time will be required for the further development of these outlying regions, but the indications are that their development in the near future will progress much more rapidly than in the years immediately before the war. France has need of the raw materials which the colonies can supply, and the manufacturing capacity of France will need new outlets. The logical line of development, therefore, embodies a concentration upon the exploitation of what is already in control of France. The recent extension of credit by French bankers to a Brazilian railway enterprise is suggestive of the temper and outlook of French industrial interests at the present time. It is to be expected that French capital will be invested more heavily than ever before, not only in



A French coal mine

French colonies but also in other undeveloped lands.

Prospective Agricultural Development

As a necessary part of the industrial development of France in the reconstruction period, much emphasis is to be placed upon agriculture. There was a noticeable extension of the use of agricultural machinery before the war, particularly in northern France. The stimulus to the use of machinery which has been occasioned by the war will not be dissipated at once. The enormous capacity of the French metallurgical industries will find one of its natural outlets in the production of farm machinery.

In view of the importance that the development of the export trade of France will assume in the reconstruction period, it is significant to note that the losses suffered by the French merchant marine during the war have been offset by new construction and purchases. Other construction is under way, and a portion of the indemnity exacted of Germany will be paid to France in the form of merchant ships. Lloyd's Register of Shipping, June, 1919, shows that the tonnage of France's merchant fleet exceeds the pre-war figure.

Speedy Recuperation

The French people have made surprising progress since the Armistice in readjusting industry to a peace basis. As early as February, 1919, the Minister of Industrial Reconstruction reported that out of a total of 1,700,000 employes occupied on November 11, 1918, in a group of Government and private

A vineyard in Champagne

plants, 1,300,000 were then engaged in peaceful pursuits. An investigation by the Department of Labor in April revealed the fact that the re-employment of the war workers in peace activities had progressed remarkably well.

One of the most striking developments of the reconstruction period is found in the rapidity with which the means of communication, destroyed or impaired during the war, have been restored. It is reported that 90 per cent. of the destroyed railways have been reconstructed and that approximately one-third of the highways damaged during the war have been repaired. The Minister of Liberated Regions reported in June that 70,000 houses had already been repaired, that 10,000 new houses had been completed, and that between 55,000 and 70,000 houses were under construction.

Able To Supply Much Equipment

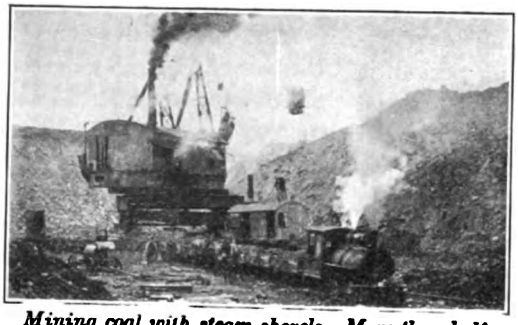
While a great volume of raw materials from abroad will be required in the work of rehabilitation, for the most part French industries are themselves able to supply the necessary equipment. The great need is not foreign machines and tools, but materials with which to operate idle equipment. The country is handicapped somewhat at the present time in its purchase of materials abroad by the unfavorable exchange rates. As an offset, however, the depreciation of the franc in foreign markets tends to restrict the importation of goods which are not essential in the necessary work of reconstruction.

Morever, it does not follow that French industry cannot proceed successfully on a large scale until the franc is restored to par in international exchange. It is possible that a measure of stability can be obtained which will enable the French people to conduct their trade advantageously with outsiders although the franc may remain for a long time at a discount in other markets; and especially in the trade with other nations whose exchanges are not at par the difficulties will not be insuperable.

The Recovery of France After 1870

After the decisive defeat at the hands of the Germans, France agreed in the Treaty of 1871 to surrender Alsace-Lorraine and to pay in addition an indemnity of 5,000,000,000 francs within a period of approximately three years. It is well-known that France displayed remarkable recuperative powers in the face of such tremendous obstacles. The indemnity was paid in a shorter time than had been allotted. For some years after 1871 the industry and trade of France gave evidence of unusual prosperity. It is noteworthy that approximately four-fifths of all indemnity payments were in bills of exchange, and not in money.

There are, of course, marked differences between the problems which confronted France in 1871 and those of today. But, if after an overwhelming defeat and the loss of an important portion of French territory the nation was able to recover so rapidly in the 70's, now heartened by victory and with productive equipment enlarged, it may be expected that recovery in the present period of reconstruction will be no less phenomenal than in the earlier period. France is in a favorable situation with reference to the expansion of the nation's trade with the Near East and the French colonies in particular. The fundamental economic situation appears to be on a sound basis. With some outside assistance in the form of capital and labor, there may be built up a great industrial nation—the New France, sharing in the expanding world trade on a scale commensurate with the country's resources and advantageous location.

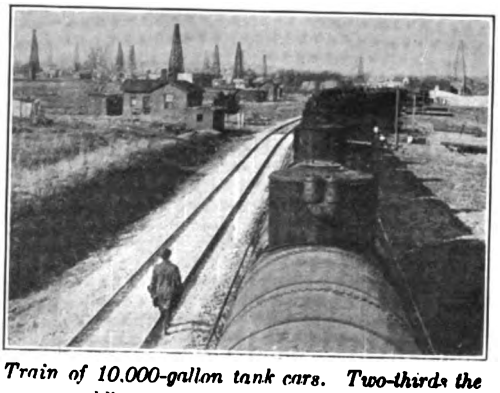


Mining coal with steam shovels. More than half the world's coal reserves are ours

The live stock census of thi 50,000,0

A Montana wheat field. One-fourth of the world's wheat is raised in the United States

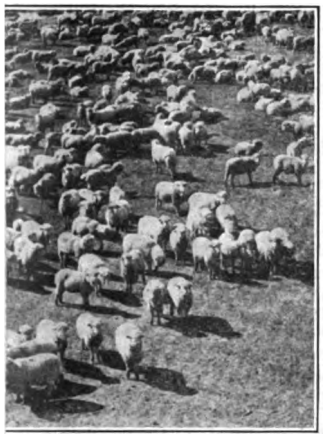
These Texas cattle are 40,000,000 head in



Train of 10,000-gallon tank cars. Two-thirds the world's petroleum comes from America

Sixty per cent. of the world's cotto

Products of Mines, Fields and Factories Th



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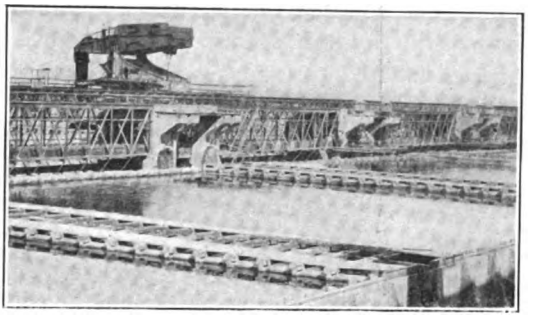
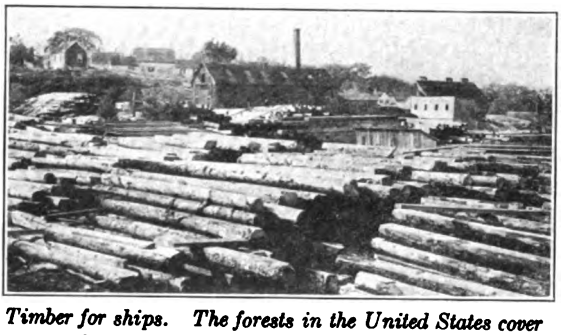
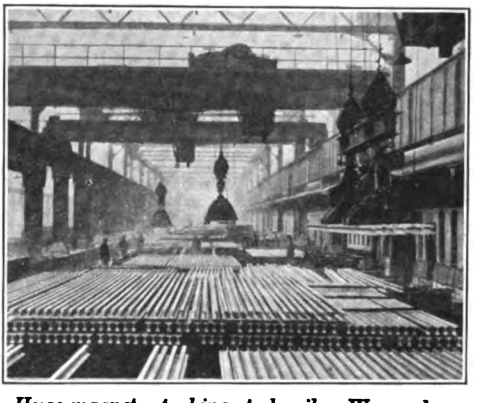


Ore conveyor and leaching tanks at an Arizona copper mine. We refine 80 per cent. of the world's output



Timber for ships. The forests in the United States cover more than 550,000,000 acres unsuited for agriculture



Huge magnets stacking steel rails. We produce 40 per cent. of the world's iron and steel

at Will Help Win the Victories of Peace

Belgium

THE case of Belgium is in some respects unique. The country was all but completely overrun by the enemy, and because it was a manufacturing center the bulk of its wealth was of a sort readily destroyed or impaired.

Debt

The Peace Treaty provides that Germany shall reimburse Belgium in the form of gold bonds for advances made by the Allies before the Armistice. Heads of delegations at the Peace Conference are said to have agreed to recommend to their respective parliamentary bodies that German reparation bonds be substituted for advances made by the Allies to Belgium, thus canceling this debt.

The debt of Belgium—exclusive of war loans from the United States and Allies prior to the signing of the Armistice, is equivalent, at par of exchange, to approximately $2,000,000,000. This is a little more than twice the debt in July, 1914. Of the $294,000,000 external debt, $227,000,000 represents advances by Allies since the Armistice, which is to be repaid from first German reparation payments.

The best approach, perhaps, to an estimate of Belgium's ability to cope with the debt, is a consideration of the pre-war industrial situation and how the nation's capacity for the production of wealth has been modified by the war.

On the eve of the war Belgium was one of the busiest countries of the world. Although in area only a little larger than Vermont, it nevertheless supported a population of more than 7,500,000.

Agricultural Resources

Belgium's prosperity and high position among the industrial nations before the war had an especially sound basis in the country's highly developed agriculture. About three-fifths of the total area was under cultivation. The average value of the produce per acre was approximately $100, a yield equalled by no other country. Land owning in small units by workers has been encouraged. The intensive cultivation of small farms, a certain traditional apitude for agriculture, an excellent system of agricultural education, low railroad rates, good roads, and a spirit of mutual helpfulness as shown by the more than 1,300 coöperative societies have all contributed to the prosperity of the farming element.

The National Bank of Belgium

Important as has been the unparalleled development of Belgium's agriculture, it is the manufacturing and related industries, diversified and intensively developed, that have

The magnificent Palace of Justice in Brussels. This is considered one of the finest buildings in all Europe. Brussels was occupied by the Germans in September, 1914, when the city surrendered to save its beautiful buildings from bombardment

given the country so prominent a place among the commercial nations.

Coal and Iron Deposits

An important key to a nation's industrial progress and possibilities is its coal supply. For some years before the war the output averaged about 23,000,000 tons, and until 1907 Belgium exported more coal than it imported. Since 1907, however, increased domestic consumption, due primarily to the very rapid growth of industries, has brought about a reversal of this condition. Two years before the war, Belgium was consuming 12 per cent. more coal than the domestic production, the imported coal coming principally from Germany.

Along with the coal resources in the southern provinces are rich deposits of iron ore, but owing in part to legal restrictions governing the extraction of these deposits, the production of ore has been small for a long time. However, Belgium's fifty blast furnaces produced in 1912, chiefly from Luxemburg ores, 2,300,000 tons of pig iron. This output of iron was reflected in the country's prosperous steel industry. Although the steel business is an old and well-established one, it has recently experienced a remarkable expansion. In the decade before the war Belgium increased its production 160 per cent.—the total production in 1912 being, in round numbers, 2,500,000 tons. The output of finished iron and steel was greatly in excess of the domestic needs and there was a growing market for the high grade Belgian steels, famous the world over.

In keeping with the development of the iron and steel industry, there has been a significant expansion of various related lines of manufacturing, especially machine and engine works, and the construction of railway equipment and automobiles. The zinc, lead, chemical, glass, and textile industries are among the other more important enterprises.

There are more miles of railway in Belgium in proportion to area than in any other country. Practically all the standard gauge roads are owned by the State.

The operation of the State railways since 1835 has been financially successful. The capital invested in the roads in 1912, $520,000,000, was equal to two-thirds of the State debt.

The Belgians have for a long time held a prominent position in international finance, the estimated volume of foreign investments in 1911 being $540,000,000, almost twice the present external debt. Belgian capital is found in a great variety of enterprises almost all over the world. There are Belgian banks, mines, railways, etc., in South America, China, Spain, and Italy, and more than 100 tramway and electrical power enterprises in various parts of Europe have been financed with Belgian capital. The greater part of Russia's pig iron output before the war was produced by Belgian companies recently established, or by firms in which Belgian capital was invested. Belgian companies supplied equipment for numerous tramways in our western cities, and many American utility securities are still owned by Belgians.

Destruction of Property During the War

The national wealth of Belgium was estimated in 1912 at 29,803,000,000 francs, or approximately $6,000,000,000. In considering the ratio of the debt to the value

British Official Photograph from Underwood & Underwood

King Albert and Queen Elisabeth reentering Bruges, which had been occupied by the Germans for four years

A steel and concrete bridge across the Meuse, dynamited by the Belgians to hamper the advance of the Germans

of the wealth at the present time it must be recognized that both are expressed in terms of a money whose value is greatly below that of pre-war times.

It is well known that the Germans destroyed and carried away great quantities of wealth. How much of this was in the form of relatively fixed capital equipment, as compared with consumption goods, it is impossible to say.

By the terms of the Peace Treaty, Belgium is to be compensated for all the destruction or appropriation of property incidental to the war. But the indemnities cannot be immediately available in full; nor, if they were immediately collectible, could they be transformed at once into buildings, machinery, etc. In any event, the country is confronted with a situation characterized chiefly by a shortage both of consumable goods and the means of producing them.

Reconstruction Activities

A report made early in 1919 after investigation by the Central Industrial Committee of Belgium showed that the condition of Belgian industries was not so unfavorable as had generally been supposed. It was found that most of the industries could resume operation in part, at least, immediately. Belts and other accessories of the industrial plants had in many cases been removed, but the deliberate wrecking of plants was shown to have been narrowly confined. The Germans had need of the output of various industries during the occupation and these had been carefully preserved. The greatest handicap was found in the inability to resume adequate operations promptly in the basic metallurgical industries.

Transportation

The main Belgian railways were completely Germanized during the war. The rolling stock which fell into enemy hands was in general worked almost to the point of destruction. Rapid progress has been made in restoring the roads to a workable condition. Considerable replacement of equipment from German stocks has been effected, and practically all the stationary equipment has been so far restored as to

provide slow transportation of freight about as in normal times.

An interesting project in connection with the reconstruction of Belgian railways is the proposed electrification of the whole system, the power to be supplied by generating stations in the coal-producing areas. The project has recently received official sanction and work is expected to proceed promptly.

Light Railways

For its size, Belgium had a larger and more efficient system of narrow gauge local railways than any other European country before the war. In many sections rails were taken from the lines and relaid by the Germans. Rolling stock was also commandeered.

An example of the industrial destruction which occurred in Belgium during the war

However, the business of the light railways, as measured by the receipts of the company operating practically all the lines, continued to grow throughout the war period. The receipts were $4,543,000 in 1914, and $8,198,000 in 1918. Dividends grew year by year from $1,172,600 in 1914 to $1,691,750 in 1918, while appropriations to reserve increased proportionately even more in this period than did dividends.

Ports

The port facilities of Belgium were damaged in varying degree by the Germans. Their repair was no less urgent than that of the railways. The work of clearing obstructions was undertaken immediately upon the signing of the Armistice. Within a few weeks navigation between the sea and Antwerp was completely reëstablished, with all buoys and lights relaid. The cargo-handling facilities of this port are in good condition. Work at the port of Ostend has been pushed vigorously, and by April the harbor could accommodate vessels of fourteen feet draft.

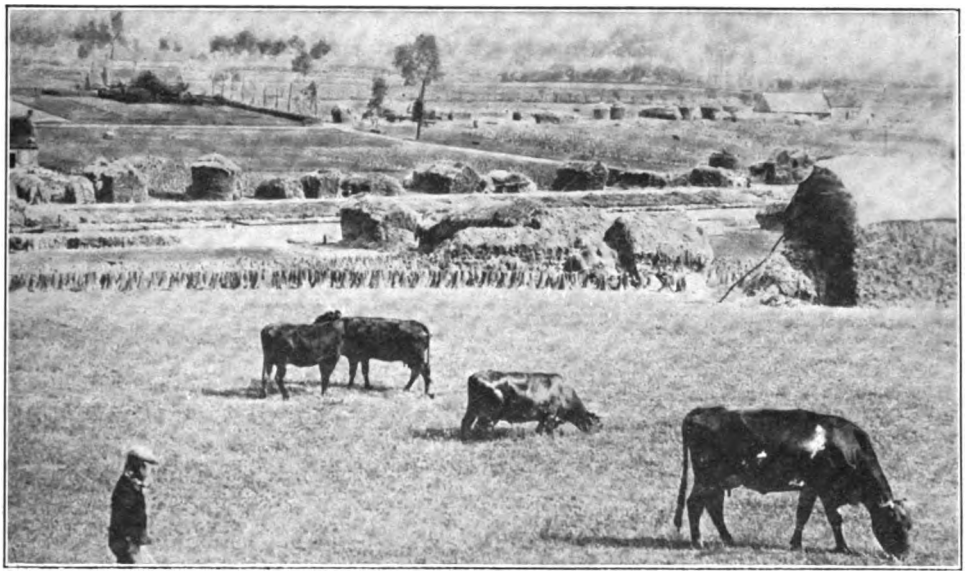
These examples are indicative of the rapidity with which the transport system of Belgium is being restored. It is characteristic of Belgian enterprise that, in addition to repairs to ports and waterways, certain improvements planned before the war are being made at the same time.

Resumption of Industrial Activity

Inasmuch as Belgian steel and iron manufactures and other allied iron and steel products comprised over 12 per cent. of the total pre-war export trade of Belgium, it is necessary for these industries to resume operations as soon as possible. Furthermore, as textile and other manufacturing plants have been stripped of machinery, it will be necessary for new machines to be installed, and it is desirable that the Belgian steel works should assist as much as possible in refitting these plants.

Although the Belgian steel companies were in a very bad way, due to the destruction of most of their property, several mills could operate at the time of the Armistice, and others have since been put in order.

Some 10 or 12 of the largest steel companies in Belgium have undertaken the formation of a large steel corporation similar in plan to the United States Steel Corporation. Each of the plants, it is understood, will specialize in some particular branch of the steel industry.



In the valley of the Lys, Belgium

There are multiplying evidences that Belgian industrial life in general is steadily and surely resuming a more normal appearance. German prisoners have been used to advantage in clearing away the debris of ruined buildings and in other work. Many carloads of machinery and fixtures taken away by the Germans have been returned and set in operation. And reëmployment of the workers at high wages has resulted in the withdrawal of public aid from nearly all of the 800,000 persons who were being assisted in November, 1918.

And official reports indicate that the yield of this year's crops will not be much below that of normal pre-war years.

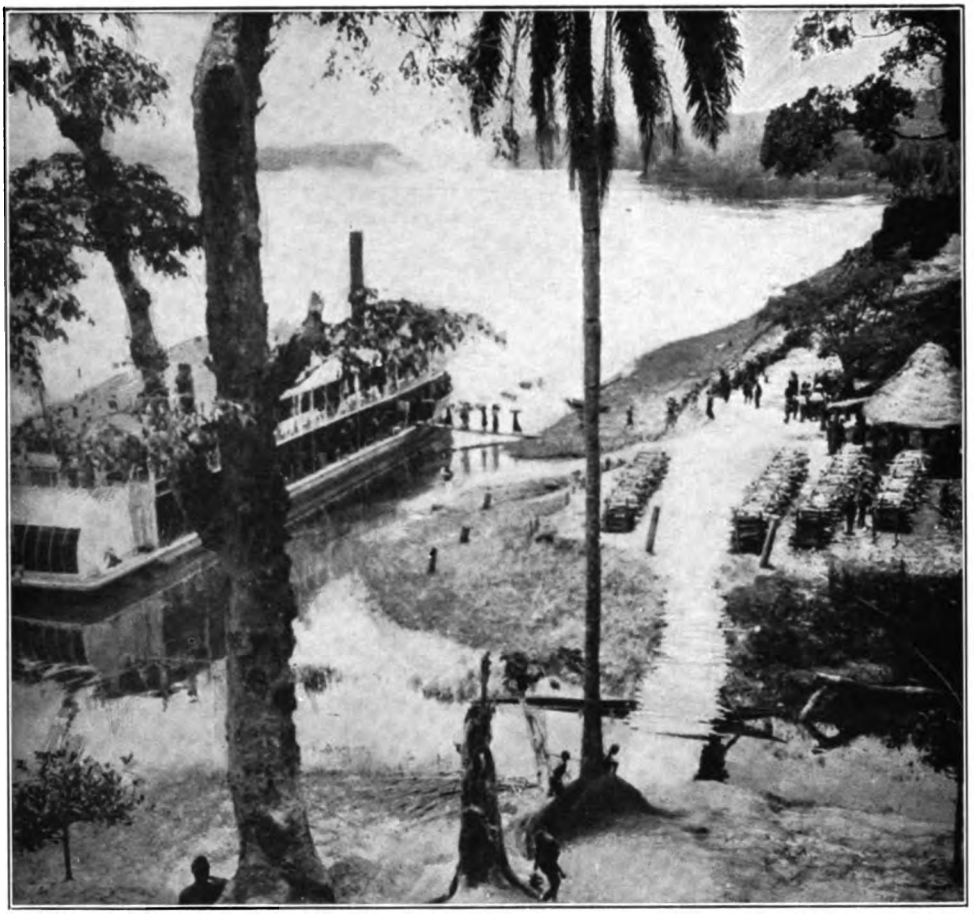
Congo

In the Belgian Congo there is an asset which will prove of increasing importance in the future development of Belgium's industries. In area the colony is eighty times as large as Belgium itself. Although situated in equatorial Africa, its climate is, on the whole, much more salubrious than that of most tropical countries, because the greater part of the country is a comparatively high plateau.

Since the annexation of the Congo by the Kingdom of Belgium in 1908, industrial enterprise there has been concerned chiefly with preparation for a comprehensive and well rounded development of the colony through the exploitation of its enormous resources—agricultural, forest, and mineral.

Among the surest evidences of a wise preparation for the future development of the Congo is the official recognition of the fact that the foundation of a stable economic life and of enduring general prosperity there, must be found in agriculture. In 1910 the Government began a comprehensive program of agricultural education and experimentation.

Quite naturally, the development of the transportation system of the colony began with the utilization of the Congo River and its tributaries, the world's second largest river system, with about 10,000 miles of navigable water. In January, 1916, there were 1,165 miles of Congo railways in operation. Important additions to this mileage have since been made. From the navigable Upper Congo River it is now possible to go by train to



A steamer taking on rubber at a plantation in the Belgian Congo

Cape Town in the South, and to Beira on the coast of Portuguese East Africa, and by train and steamboat across German East Africa to the Indian Ocean.

The vast mineral wealth of the Congo includes copper, tin, gold, diamonds, iron, and coal. The chief mining interests are the copper properties in Katanga, the southeastern section of the colony. Only a small proportion of the total deposits are being worked, but the estimated output in 1918 was 40,000 tons.

The colony's exports and imports in 1913 had a value of approximately $25,000,000, and in 1916 the foreign trade exceeded $38,000,000.

Belgium's Chief Assets

The depletion of man-power in Belgium during the war was not as great proportionately as was experienced by most of the belligerent nations, for the sudden rush of the invasion made it impossible to mobilize a large number of the men of military age.

The proved industrial capacity and dependable character of the masses of the Belgian workers are the nation's best assets in the present emergency. The record of the nation's achievements in the past and its quiet and confident grappling with present difficulties are the surest guarantees that the Belgians can and will conquer in peace as they conquered in war.

Italy

THE definite completion of Italian unity as a result of the recent war affords Italy the first opportunity to use the country's economic resources freely in the creation of a modern industrial system. This achievement has been made at great cost to the Italian people, of course. While the national debt has been greatly increased, at the same time the country's economic power has been enhanced.

The estimated value of the national wealth before the war was $16,200,000,000; according to the estimate of the Finance Commission for Reconstruction in Italy, the wealth at present has a value of 110,000,000,000 lire, equivalent, at the par of exchange, to $21,230,000,000.

The debt of Italy on March 31, 1919, including paper money, was 67,667,454,963 lire, or $13,079,918,807, of which about three-fourths was internal. The external debt, amounting to $3,330,141,784, consisted entirely of credits extended during the war by the United States Government and Allies. The pre-war debt was approximately $2,631,748,000. The annual interest on the entire debt as of March 31, 1919, is approximately $577,234,230.

Currency and Financial Policy

In July, 1914, State notes outstanding totalled $96,307,000, and bank notes $421,319,000. On November 30, 1918, the State notes outstanding amounted to $403,177,000, and bank notes to $2,238,221,000. At the earlier date the ratio of metallic reserve to State notes was 26.5 per cent. The corresponding figure for bank notes was 68.1 per cent. At the latter date these ratios were respectively 13 and 10.9 per cent.

The adverse effects of this inflation have been greatly tempered by the adoption of a sound taxation policy on the part of the Italian Government. Additional war taxes were imposed to meet added expenditures. The success of this taxation policy is indicated by the fact that the ratio of debt service to revenue receipts, which in the fiscal year 1912–13 was 23.6 per cent, fell below this figure only once during the war; in 1917–18 the ratio was 25.5 per cent.

Signor Nitti has estimated the peace budget of Italy at approximately 6,000,000,000 lire, or $1,158,000,000, which is considerably less than the total revenue receipts for the fiscal year 1917-18, and is about two and one half times the pre-war revenue receipts. In this estimated peace budget the debt service will consume about 50 per cent. of the revenues.

Location, Area, and Population

Italy is situated within easy access of the Atlantic and Indian Oceans and has, therefore, special advantages for commerce. Moreover, the Italian Peninsula forms part of the shortest route from European industrial centers to the Suez Canal, and transportation across the Alps is facilitated by four or five lines of railway, and by well constructed roads.

The total area of Italy, without the new accessions of territory, is approximately 110,632 square miles; the estimated population in 1915 was, 36,120,000 people. The war losses totalled 462,000 men.

Italy has been handicapped by its lack of coal and iron. While there is considerable agricultural wealth, Italy's greatest asset has been its population. The growth

of population was such as to give rise to heavy annual migration, and one of the country's principal means of increasing the national wealth has been the receipt of money from Italians living in other lands.

Industrial Expansion

Italy has had a long, hard struggle to recover lost ground in her industrial activity, in comparison with the countries of northern Europe. Up to 1860 the best of her energy and the lives of her sons were sacrificed to obtain national unity. Since 1860, however, Italy has striven to regain the lost ground, and up to the outbreak of the war, she had succeeded in no small measure.

Although Italy is primarily an agricultural country, considerable progress has been made in manufacturing.

The continuous economic development of Italy is illustrated by the following figures reflecting the first half century of Italian unity, from 1860 to 1910. During this period, the value of agricultural production increased from $340,000,000 to $1,740,000,000. Thirty years ago, the industries of Italy were but little developed, whereas there are now approximately 150,000 establishments and factories whose production amounts to several billions of lire.

Between 1880 and 1913 the value of Italian manufactures rose from $120,000,000 to $600,000,000. According to the census of 1911, there were 3,000,000 Italians employed in manufacturing industries and 11,000,000 in agriculture.

Iron Industry

The Italian iron industry is new. The output of pig iron from the Elba mines was 112,000 tons in 1909. In 1913 the output was 426,000 tons. Before the war, approximately 200,000 tons of pig iron were imported every year, principally from the United Kingdom. The output of steel increased from 350,000 tons in 1909 to 1,000,000 tons in 1913.

The Italian engineering industry has made considerable progress in recent years, particularly in the decade before the war. In 1913 Italy was producing all rolling stock needed for the railways and had begun to supply French railways with equipment. Italian works had a capacity for turning out 1,500 engines and 12,000 freight and passenger cars a year. Despite the energetic competition of Germans, the Italians had made great progress before the war in the production of electrical machinery.

Silk and Chemical Industries

Silk manufacture has been one of the most important Italian industries. Before the war 175,000 people were engaged in this industry. Exports of silk accounted for one-quarter of the average value of Italian exports. In the years preceding the war the Italian woolen industry had reached a considerable development gradually emancipating itself from foreign control and seeking new outlets for exportation. About four-fifths of the raw material was imported from South America and Australia. Although the prices for raw material increased about threefold after the outbreak of the war, and coloring materials for dyeing became constantly more scarce, the remarkable progress achieved from 1880 to 1913 has been admirably maintained during the war period.

Agricultural Production

Wheat is easily the most important agricultural product of Italy, both as regards area sown and the amount of crop produced. It is estimated that about 34 million acres are devoted to agriculture, and of this amount 11,700,000 are sown with wheat. The total value of the crops and products of Italian agriculture as a whole is placed at $1,360,000,000, while

the value of wheat at a normal price is estimated to be $235,000,000. As regards other cereals, about 4,000,000 acres are planted with maize and 2,000,000 with rye, barley, rice and oats. Sugar beets, hemp, flax, and tobacco take up about one-sixth of the total agricultural area.

Another important branch of Italian agriculture is the production of grapes and wine. The statistics for the last five years before the war, when Italian agriculture was flourishing under normal conditions, show that there were 11,000,000 acres of vineyards, producing 979,000,000 gallons of wine. There are also more than 3,000,000 acres planted with olives, from

One of the famous marble yards at Carrara, Italy. Carrara marble is exported to many countries

which are obtained nearly 50,000,000 gallons of oil.

Italy also raises an appreciable crop of oranges and lemons, which are grown extensively in southern Italy and Sicily, and amount to about 780,000 tons a year. Nearly 100,000 tons of oranges and about 300,000 tons of lemons are exported. Approximately 250,000 tons are manufactured into citric acid and similar products, for which Austria-Hungary has been Italy's most important customer, and Great Britain the second best. For some years before the war, there existed in Italy a fruit-growing organization founded by the Government, which has been an important factor in the promotion of this industry.

Undoubtedly silk-growing holds a place next to that of wheat-growing in Italian agriculture. The amount of raw silk produced in Italy during the years just prior to the war was between 10,000,000 and 12,000,000 pounds, the greater part of which was exported.

Economic Changes

During the war period, industrial growth in many directions has been manifest.

In June, 1914, the total normal capital of all the limited companies registered in Italy was approximately $1,254,500,000. This capital had risen before the end of 1918 to $3,088,000,000, or by about 146 per cent. During the last year, alone, 540 new companies were registered, having a capital of about $164,000,000, the greater part of which has been invested in the iron, steel, and engineering industries. Besides, the capitalization of old companies has also grown. Iron and steel companies, for instance, have acquired not less than $193,000,000 of additional capital.

Technical improvements have been various. In 1913 the electric furnace was virtually unknown in the production of Italian pig iron. Today electric furnaces are used extensively and have a capacity of 200,000 tons.

Prior to 1914, Italy imported most of the machinery used in the textile, beet sugar, and paper industries, as well as agricultural machinery, Italian concerns are now able to supply a large part of this equipment.

In common with other countries, Italy experienced a marked growth in the chemical industry during the last five years, and the development of electrical power will afford opportunity for a still further expansion in these lines.

Engineering Skill Developed

Italy has derived another gain from her supreme economic effort put forth during the war; a gain which is less tangible than those set forth in the foregoing paragraphs, but one no less valuable in the future industrial expansion of the country. This is an enhanced valuation in the eyes of the remainder of the world of the talent and skill which has been demonstrated by the engineering ability displayed by the Italians in dealing with all sorts of complex and difficult problems presented to them in their vast war program. The production of munitions of war, the manufacture of aeroplanes, and the development of shipbuilding, all in the face of great difficulties, have proved that the skill and ability of the Italians is not a thing of tradition, but a dynamic power that can be turned to account in any crisis. In view of the very palpable gains in the industries of the country, together with the newly awakened consciousness of power on the part of the Italians, and the recognition of this power by other countries, it seems safe to assume that in the future Italy will prove to be a forceful factor in the world's industrial and commercial life.

Since the signing of the Armistice, Italians have been especially aggressive in restoring trade, particularly with the Balkans and the near East.

A lemon grove in Sicily

Water Power

The hydro-electric power already in use and still to be developed will be the most important factor in the industrial future of Italy. During the year 1917, Italian authorities granted 54 requests for concessions for the use of waterpower. These concessions included 17 sources in Piedmont, with a capacity of 62,000 horse-power; 8 in Umbria, with 34,500 horse-power; 6 in Lombardy, with 37,000 horse-power; and several in Calabria, with a capacity of 26,880 horse-power.

It has been estimated that Italian waterpower is capable of supplying a total of over 6,000,000 horse-power; there is in use at present more than 1,200,000 horse-power. Works under construction and those definitely planned for the immediate future will have a capacity of 800,000 horse-power. It is expected, therefore, that in a short time 2,000,000 horse-power of electrical energy will be employed. More than 200 miles of railway have already been electrified.

The agricultural resources of Italy are of far greater importance than its mineral wealth. In any future adjustment Italy will not need assistance in developing her agriculture but will require good openings

and profitable markets having quick and easy communication with the centers of production.

Trade Expansion

While an expansion of agricultural production will be sought, principally through improvements in methods, rather than by extension of the area under cultivation, the greatest development is to be expected in manufacturing. The abundant and relatively cheap and efficient labor supply, coupled with remarkable engineering skill, will facilitate the intensive utilization of the nation's resources for manufacturing.

During the six years from 1908 to 1913, inclusive, the visible trade balance of Italy showed an excess of imports averaging about $230,000,000. This so-called adverse visible balance was offset by invisible items. The principal invisible items, with estimated average amounts, were the following: return on Italian investments abroad, $15,500,000; net remittances of emigrants and expenditures of travelers in Italy, $170,000,000; and receipts of the Italian merchant marine, $20,000,000.

During the war, the adverse visible balance has increased, and the offsetting invisible balance has decreased. This fact, together with currency inflation, has been reflected in the depreciation of the lira in outside markets. With the restoration of normal conditions in industry and commerce, however, the balancing of the nation's trade account will be effected. Tourists' expenditures and remittances of emigrants, no doubt, will both surpass previous records.

The continued emigration of laborers and settlers to other countries will help to create markets for Italian products. Southern France and South American countries especially will be inviting fields for Italian emigrants. The overseas possessions have an area about four times that of Italy proper, including the accessions of territory gained in consequence of the recent war. These offer important industrial and trade possibilities making for the development of a great industrial nation.

Italy is well situated to serve as the principal entre-pôt between the Far East and Central and Southern Europe. Italians with their historic legacy of maritime supremacy and their proved initiative will not fail to avail themselves of the opportunity to develop Italian industry and commerce.

The Outlook in Europe Generally

HAVING noted in some detail the conditions now obtaining in the countries of the four chief Allies, we may turn again to elements in the general outlook for these countries as a whole.

In its broadest outlines the essential economic task of reconstruction is that of utilizing effectively the capacity of peoples of these countries to produce marketable commodities.

One of the chief problems confronting many of the industries grows out of the shortage of the raw materials of manufacture, and the necessity of buying some of these abroad at a time when exchange rates constitute a special handicap. And the same holds true with respect to purchases of materials that are needed in order to round out the industrial plant, by construction in some cases and repairs in others.

We have noted that in nearly all the countries studied there is promise eventually of a much reduced dependence upon outside sources for food supplies. Raw materials will ultimately be provided in greater volume from domestic sources. At present, however, Europe must look to the outside largely for raw materials and for markets for its manufactures.

Development of World's Frontiers

It is fortunate that there is promise of a development in the relatively unoccupied regions of the world which may be expected to play an important part in the further progress of the more highly industrialized nations.

Some notable preparations were being made for industrial expansion before the war. Some individual undertakings, in themselves, were of world-wide significance. One must see these various and, in a sense, isolated enterprises in their interrelations to appreciate their full significance at the present time.

Taken together they were merely the logical outgrowth of conditions in the leading industrial nations. The United States, Japan, and Germany exemplified the industrial development which characterized the latter years of the nineteenth century; and because of their relative industrial progress these countries, naturally, were looking increasingly for opportunities to expand, chiefly by the extension of foreign trade and investments. And, as a further consequence, toward the end of this period it became necessary also for the surplus capital of other countries, which had contributed to this industrial growth, to seek opportunities in new areas.

As a result of the war there will be an even greater stimulus to the settlement of new countries than was felt prior to 1914. The war, it should be remembered, was mainly between the most highly industrialized nations, peoples whose manufacturing had been most extensively developed. Such nations rely largely upon outside sources for raw materials of manufacture and for foodstuffs. The extraordinary pressure which will be put upon these countries for the fullest possible output from their factories in the period of reconstruction should encourage the exploitation of natural resources throughout the world.

If complete recovery from the war had to be accomplished immediately, it would be illogical to rely extensively upon the exploitation of virgin resources in distant places, for time is required to reap the full results of the fundamental outlay of capital and energy in making these resources accessible. But the work of recov-

ery is to be a matter of years, not months, and meanwhile the newer countries will be able to assist increasingly, not merely by producing raw materials but by providing markets for the products of Europe's workshops.

Industrial Expansion in the United States After the Civil War

In this connection, it may be interesting to recall the course of economic events in this country following the Civil War.

Apparently the situation at the close of that war might have foreshadowed a period of serious industrial depression in the United States. Hundreds of thousands of soldiers had to be re-absorbed into industry; the economic and social system of the southern half of the Republic was disrupted, with most of its people literally in poverty; the nation's money was, for the most part, a mass of depreciated, irredeemable notes; prices were abnormally high, but rapidly falling; and there was a public debt of more than $2,500,000,000.

Instead of industrial prostration, however, there followed a remarkably prompt restoration of apparently normal prosperity. The explanation is found in the prewar foundations, for the expansion which came as a sequel to the war was along the lines previously projected—expansion which was the natural outgrowth of the spread of transportation agencies.

The gross volume of the country's business multiplied threefold in the twenty-year period between 1860 and 1880. With the exception of a slight recession in 1869, there was an uninterrupted gain until the credit machinery collapsed under the strain of the crisis of 1873, precipitating a period of depression. But after three years the recovery began and was exceedingly rapid.

Fortunately, conditions prevailing on the eve of the Civil War, especially in the provision of essential transportation lines, formed a substantial basis for continued growth of business, and the war did not prevent, or in great measure retard, such development. In the crucial test of the reconstruction period, neither currency inflation, nor the shifting from war to peace bases, nor the long downward trend in prices, nor the rising cost of labor—indeed, not even the combination of all four factors—proved able to stay a remarkable industrial expansion.

Economic Possibilities of the New Political Order

The new world political order growing out of the war which has just ended embodies economic possibilities which promise to contribute greatly to the industrial progress of Europe in the coming years.

The burden of supporting costly military and naval establishments has long been recognized as a tremendous economic sacrifice. We are not here presuming to say they were needless sacrifices. How many wars a high degree of so-called preparedness has spared the world can never be known. That, in some measure, it has been responsible for a number of actual wars has been maintained with a formidable array of facts.

No sort of political machinery, however, can succeed in preserving peace indefinitely if the economic influences which have been the chief provocation of war in the past are left unmodified. And one of the most promising signs of the time is the world-wide desire to eliminate these economic causes of armed strife.

There is more universal appreciation than ever before of the fact that the property of a weaker people must effectively be guaranteed against seizure by a covetous neighbor. Once it can be established that small and weak nations are secure, it will no longer be necessary to play the game of power politics in order to maintain national existence or a respected place in the family of nations. In accomplishing this result there will be released for expression

in appropriate directions an enormous fund of national energy. All too often economic birthrights have had to be bartered for protection against designing neighbors. If peace, which is impossible without security, can be maintained, then economic development may proceed along natural lines. And the freedom to develop national resources in accordance with economic law, unhampered by the requirements of power politics, would be a gain of inestimable value.

While these prospective benefits, which the new political order is expected to provide, cannot all be immediately available, nevertheless the mere promise of such benefits should be effective in shaping the reconstruction programs in Europe.

Economic Benefits from Regrouping of Population

Closely associated with these promised economic benefits is the regrouping along racial lines of portions of Europe's population. The subjugation of peoples in the interest of dynastic ambitions and power politics in general inevitably curtails their economic value to the world. The promise of an opportunity to realize national ambitions in respect of culture and material civilization without undue restraint will inevitably result in a fuller utilization of the ability and resources of the liberated peoples.

There are, then, for Europe, in the trying period of reconstruction upon which it is entering, mitigating circumstances of vast significance.

But it is believed in certain quarters that social unrest threatens disaster for the industrial life of some European nations. In part of Russia, at any rate, it will probably require a comparatively long time to restore order. And there may be prolonged disorder in other parts of Europe. Food and employment have apparently offered the surest safeguards against certain classes of unrest, particularly the unrest that is most threatening today.

The way to protect social order in Europe, therefore, would seem to be to get industries going and people employed, and to increase the opportunity for freedom of economic action on the part of individuals, as well as to accord to the individual a larger share in the profits of industry.

America's Part in the Reconstruction of Europe

Our conclusions respecting the general solvency of Europe today and the confidence with which we contemplate their future does not blind us to the fact that the tasks which lie ahead are not easy.

But we should not forget the struggle of the human race against the obstacles of progress, against the powers of destruction, which have harassed it since the dawn of time, and fall into the error of believing that, after four and a half years of the most heroic fighting in the world's history, the peoples of Europe may now succumb to the lesser danger of peace. Such reasoning is not in accord with the fundamental facts of human nature.

America stands in a position of peculiar responsibility respecting the work of reconstruction in Europe.

The situation there, without reference to our national interests as involved in the recent war, calls for America's help. We have a great fund of loanable wealth, and Europe has need of the credits and materials which we can supply. Our productive equipment is much greater than before the war and its proper utilization will involve a distinct recognition of the present needs of the peoples who sacrificed more than we in winning the common victory.

Revival of Industrial Will-Power Needed

Stupendous as are Europe's financial burdens, titanic as are its economic tasks,

one of its paramount problems is essentially psychological. In order to recover rapidly from the effects of the war, Europe needs, quite as urgently as it requires machinery and raw materials, a revival of *industrial will-power*. We should remember that, in the final analysis, the products of the mines, fields, and factories won the war, and that they alone can win the greater victory of peace. It is for the purpose of enabling Europe to obtain sufficient quantities of these vital products and to regain her industrial will-power that we must do our full duty in the present world crisis.

As a result of the war, we have changed from a debtor to a creditor nation. And having loaned to belligerents before America became a party to the war, when those nations were using this credit for destructive purposes, we can scarcely refuse credits that are to be used for purposes of construction and restoration.

The United States is abundantly equipped to perform its proper function in the peace era. This country produces 20 per cent. of the world's supply of gold; 25 per cent. of the world's supply of wheat; 40 per cent. of the world's iron and steel; 40 per cent. of the world's silver; 50 per cent. of the world's zinc; 52 per cent. of the world's aluminum; 60 per cent. of the world's cotton; 66 per cent. of the world's supply of oil; and 75 per cent. of the world's corn. This country refines 80 per cent. of the world's copper, and operates 40 per cent. of the world's railroads.

But most valuable of all, the stimulus which the dire necessities of war supplied to American inventiveness, resourcefulness, productiveness, courage, and spirit of adventure constitutes a national asset which not only transcends the bounds of material computation but challenges the boldest imagination.

In brief, American genius, efficiency, and common sense must aid our gallant Allies in achieving the still greater victory of peace.